# Safety Data Viewer Advanced Queries Crash History Tables Documentation

Table of Contents

[Overview](#_Table_Descriptions_and)

[Safety Data Viewer Data Fields ……………………………………………………………………………………….](#_Safety_Data_Viewer)

[Core Traffic Control Cross Tabs……………………………………………………………………………….……….](#_Core_Table:_nysdot_all_2)

[1. Year…………………………………………………………………………………………………………….……….](#_Year_(case_year):_Year)

[2. Time of Day……………………………………………………………………………..………………….……….](#_Time_of_Day)

[3. Traffic Control………………………………………………………………………….………………….……….](#_Traffic_Control_(traf_cntl):)

[4. Ped Action……………………………………………………………………………….………………….……….](#_Ped_Action_(ped_actn):)

[5. Severity…………………………………………………………………………………….………………….………](#_Severity_(ext_of_inj):_Severity)

[6. Loc…………………………………………………………………………………………..………………….……….](#_Loc_(loc):_Location)

[7. Mode……………………………………………………………………………………….………………….……….](#_Mode_(accd_type_int):_Mode)

[Core x Vehicle Traffic Control Cross Tabs……………………………………………………….……….…………](#_Core_Table_x)

[8. Taxi/Livery……………………………………………………………………………….………………….……….](#_Taxi/Livery_(rgst_typ):_Whether)

[9. Vehicle Type…………………………………………………………………………….………………….……….](#_Vehicle_Type_(veh_typ):)

[10. MVO Pre Action……………………………………………………………………..](#_10._Traffic_Control)………………….……….

[11. Bike Pre Action……………………………………………………………………….](#_11._Traffic_Control)………………….……….

[12. Age…………………………………………………………………………………………………………….……….](#_Age_(age):_Age)

[13. Sex………………………………………………………………………………………….………………….……….](#_Sex:_Sex_of_1)

[Advanced Query Crash Cross-tabs](#_Advanced_Query_Crash)

# Overview

This feature allows users to generate injury tables presenting the distributions across different combinations of fields. Due to the structure of the NYSDOT data there are a number of conditions which are ambiguous and need to be counted in the unknown or not applicable categories for any given field. Each field has its own restrictions and when two fields are used in this cross tab function the most restrictive conditions of both fields get applied to the whole table. For example, when pedestrian action is crossed with motor vehicle action only pedestrian injuries (condition of pedestrian action) from crashes that involved only 1 motor vehicle (condition of motor vehicle action) are included. Any crashes with bike or motor vehicle occupants would be in the NA category of the pedestrian action and any crashes with more than 1 motor vehicle would be in the unknown category of the motor vehicle action.

The below is a list of available fields in the cross tab function with their restrictions.

## **Safety Data Viewer Data Fields**

## **Core Table: nysdot\_all**

Universal Constraints:

* years of analysis
* location of analysis
* exclude = 0 etc

### **Year (case\_year):** Year in which crash occurred.

Parameters:

* Type: int
* Accepted values:Any valid year between 2001 and the latest available year of data
* Unknowns: When null (should never occur)
* NA’s: None. All crashes contain a year.

### Time of Day (accd\_tme):Time at which crash occurred where time format is 24-hour clock. Crashes that occur at exactly midnight are considered unknown.

Parameters:

* Type: timestamp
* Accepted values: When time between 12:01am-11:59pm
* Unknowns:
  + When time is not between ’00:00’ to ’24:00’
  + When time is exactly midnight
  + When null
* NA’s: None. All crashes contain a timestamp.

### **Traffic Control (traf\_cntl):** Type of Traffic Control at the location where the crash occured.

Parameters:

* Type: character varying
* Accepted Values:(‘01’,'02', '03', '04', '05', '06', '07', '08', '09', '10', '11', '12', '13', '14', '15', '16', '20', '??', 'XX', 'YY')
* Unknowns:
  + (‘ZZ’,’00’)
  + When null
* NA’s: None

### **Ped Action (ped\_actn):** Action of pedestrian in crash where the vehicle involved collided with a pedestrian. This is limited to pedestrian crashes. Here we must specify that accd\_type\_int = 1 to ensure we are identifying pedestrian actions.

Parameters:

* Type: character varying
* Accepted values: (‘01’,'02', '03', '04','05','06','07','08', '09','10','11','12', '13','14')
* Unknowns:
  + ('??','YY','XX', 'ZZ')
  + When null
* NA’s: When accd\_type\_int != 1

### **Severity (ext\_of\_inj):** Severity of all injured victims involved in crash; victim is defined by accident type. Severity describes up to five victims and is dependent on number of injuries as well as number of fatalities. K’s are ignored and unknown individual victim severities are mixed with known individual victim severities.

Parameters:

* Type: character varying
* Accepted values: ('A','B', 'C')
* Unknown:
  + When len(ext\_of\_inj) != (num\_of\_inj+num\_of\_fat) or ext\_of\_inj in ('X', 'U **)**
* NA’s: None

### **Loc (loc):** Location Type at which crash occurred.

Parameters:

* Type: character varying
* Accepted values: (‘MID’, ‘INT’, ‘H’)
* Unknowns:
  + When null
* NA’s: None

### **Mode (accd\_type\_int):** Mode of travel of injured victim involved in crash.

Parameters:

* Type: int
* Accepted values: (1,2,3)
* Unknowns:
  + When null
* Na’s: None

## **Vehicle Table: nysdot\_all\_vehicle**

### **Taxi/Livery (rgst\_typ):** Boolean of whether or not crash involved at least one Taxi/Livery.

Parameters:

* Type: character varying
* Accepted values: (’54’, ’55’)
* Unknowns: None
* Na’s: None. Every crash is either taxi/livery or other.

### **Vehicle Type (veh\_typ):** The type of vehicle involved in crash where only 1 motor vehicle was involved. Crashes with more than 1 motor vehicle are considered unknown.

Parameters:

* Type: character varying
* Accepted vaules:('1', '2', '3', '4')
* Unknowns:
  + ('0')
  + When motor vehicle count is greater than 1 (bicycles and pedestrians recorded in the vehicle table are not included in the motor vehicle count)
  + When null
* NA’s: None. All Crashes in the database involve at least 1 motor vehicle.

### **MVO Pre Action (pre\_accd\_actn):** Action of motor vehicle in crash where only 1 motor vehicle was involved. Crashes with more than 1 motor vehicle are considered unknown.

Parameters:

* Type: character varying
* Accepted values: ('01','02','03','04', '05','06','07','08', '09','10','11','12', '13','14','15','16','17','18','20')
* Unknown:
  + ('??','YY','XX', 'ZZ')
  + When motor vehicle count is greater than 1 (pre actions of bicycles and pedestrians that are recorded in the vehicle table are not included in the motor vehicle pre action count)
  + When null
* NA’s: None. All Crashes in the database involve at least 1 motor vehicle.

### **Bike Pre Action (pre\_accd\_actn):** Bike Action at time of Crash

Parameters:

* Type: character varying
* Accepted values: ('01','02','03','04', '05','06','07','08', '09','10','11','12', '13','14','15','16','17','18','20')
* Unknown:
  + ('??','YY','XX', 'ZZ')
  + When bicycle count is greater than 1 (pre actions of bicycles that are recorded in the vehicle table are not included in the bicycle pre action count
  + When null
* NA when accd\_type\_int != 2

### **Age (age):** Age of injured victim involved in crash. In motor vehicle injuries, we know the age of the driver but not of the passenger and whether the driver or passenger was injured is unkown. Thus, age is limited to pedestrian and bicyclist injuries.

Parameters:

* Type: character varying
* Accepted values: (1-120)
* Unknowns:
  + When age greater than 120
  + When age = 0
  + When accd\_type\_int = 1 and veh table ped count !=1
  + When accd\_type\_int = 2 and veh table bike count !=1
  + When null
* NA’s: When accd\_type\_int = 3

### **Sex (sex):** Sex of injured victim involved in crash. In motor vehicle injuries, we know the sex of the driver but not of the passenger and whether the driver or passenger was injured is unkown. Thus, sex is limited to pedestrian and bicyclist injuries.

Parameters:

* Type: character varying
* Accepted values: (M,F)
* Unknowns:
  + When sex not in (M,F)
  + When accd\_type\_int = 1 and veh table ped count !=1
  + When accd\_type\_int = 2 and veh table bike count !=1
  + When null
* NA’s: When accd\_type\_int = 3

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Advanced Query Crash Cross-tabs | | | | | | | | | | | | | |
|  | year | time | traf\_cntr | ped\_actn | sev | loc | mode | taxi/liv | veh\_typ | mv\_actn | bike\_actn | age | sex |
| year | all injuries | all injuries where accident time is known | all injuries where traffic control is known | all ped injuries where ped action is known | all injuries where injury severity is known | all injuries | all injuries | all injuries | all injuries in crashes where veh type is known with exactly 1 motor vehicle | all injuries in crashes with exactly 1 motor vehicle whose action is known | all bike injuries with exactly 1 bike whose action is known | All bike and ped injuries where age is known | All bike and ped injuries where sex is known |
| time | all injuries where accident time is known | all injuries where accident time is known | all injuries where traffic control and accident time is known | all ped injuries where ped action and accident time is known | all injuries where injury severity and accident time is known | all injuries where accident time is known | all injuries where accident time is known | all injuries where accident time is known | all injuries in crashes where veh type and accident time is known with exactly 1 motor vehicle | all injuries in crashes where accident time is known with exactly 1 motor vehicle whose action is known | all bike injuries where accident time is known with exactly 1 bike whose action is known | All bike and ped injuries where age and time are known | All bike and ped injuries where sex and time are known |
| traf\_cntrl | all injuries where traffic control is known | all injuries where time and traffic control is known | all injuries where traffic control is known | all ped injuries where ped action and traffic control is known | all injuries where injury severity and traffic control is known | all injuries where traffic control is known | all injuries where traffic control is known | all injuries where traffic control is known | all injuries in crashes where veh type and traffic control is known with exactly 1 motor vehicle | all injuries in crashes where traffic control l is known with exactly 1 motor vehicle whose action is known | all bike injuries where traffic control is known with exactly 1 bike whose action is known | All bike and ped injuries where age and traffic control are known | All bike and ped injuries where sex and traffic control are known |
|  | year | time | traf\_cntr | ped\_actn | sev | loc | mode | taxi/liv | veh\_typ | mv\_actn | bike\_actn | age | sex |
| ped\_actn | all ped injuries where ped action is known | all injuries where accident time and ped action is known | all injuries where traffic control and ped action is known | all ped injuries where ped action is known | all injuries where injury severity and ped action is known | all ped injuries where ped action is known | all ped injuries where ped action is known | all ped injuries where ped action is known | all injuries in crashes where veh type and ped action is known with exactly 1 motor vehicle | all ped injuries  in crashes where ped action is known with exactly 1 motor vehicle whose action is known | None | All ped injuries where age and ped action are known | All ped injuries where sex and ped action are known |
| sev | all injuries where injury severity is known | all injuries where accident time and injury severity is known | all injuries where traffic control and injury severity is known | all ped injuries where ped action and injury severity is known | all injuries where injury severity is known | all injuries where injury severity is known | all injuries where injury severity is known | all injuries where injury severity is known | all injuries in crashes where veh type and severity is known with exactly 1 motor vehicle | all injuries in crashes where severity is known with exactly 1 motor vehicle whose action is known | all bike injuries where injury severity is known with exactly 1 bike whose action is known | All bike and ped injuries where age and severity are known | All bike and ped injuries where sex and severity are known |
| loc | all injuries | all injuries where accident time is known | all injuries where traffic control is known | all ped injuries where ped action is known | all injuries where injury severity is known | all injuries | all injuries | all injuries | all injuries in crashes where veh type is known with exactly 1 motor vehicle | all injuries in crashes with exactly 1 motor vehicle whose action is known | all bike injuries with exactly 1 bike whose action is known | All bike and ped injuries where age is known | All bike and ped injuries where sex is known |
|  | year | time | traf\_cntr | ped\_actn | sev | loc | mode | taxi/liv | veh\_typ | mv\_actn | bike\_actn | age | sex |
| mode | all injuries | all injuries where accident time is known | all injuries where traffic control is known | all ped injuries where ped action is known | all injuries where injury severity is known | all injuries | all injuries | all injuries | all injuries in crashes where veh type is known with exactly 1 motor vehicle | all injuries in crashes with exactly 1 motor vehicle whose action is known | all bike injuries with exactly 1 bike whose action is known | All bike and ped injuries where age is known | All bike and ped injuries where sex is known |
| taxi/liv | all injuries | all injuries where accident time is known | all injuries where traffic control is known | all ped injuries where ped action is known | all injuries where injury severity is known | all injuries | all injuries | all injuries | all injuries in crashes where veh type is known with exactly 1 motor vehicle | all injuries in crashes with exactly 1 motor vehicle whose action is known | all bike injuries with exactly 1 bike whose action is known | All bike and ped injuries where age is known | All bike and ped injuries where sex is known |
| veh\_type | all injuries in crashes where veh type is known with exactly 1 motor vehicle | all injuries in crashes where veh type and accident time is known with exactly 1 motor vehicle | all injuries in crashes where veh type and traffic control is known with exactly 1 motor vehicle | all injuries in crashes where veh type and ped action is known with exactly 1 motor vehicle | all injuries in crashes where veh type and severity is known with exactly 1 motor vehicle | all injuries in crashes where veh type is known with exactly 1 motor vehicle | all injuries in crashes where veh type is known with exactly 1 motor vehicle | all injuries in crashes where veh type is known with exactly 1 motor vehicle | all injuries in crashes where veh type is known with exactly 1 motor vehicle | all injuries in crashes  where veh type is known with exactly 1 motor vehicle whose action is known | all bike injuries in crashes with exactly 1 bike who’s action is known with exactly 1 motor vehicle whose type is know | All bike and ped injuries where age and where veh type is known with exactly 1 motor vehicle | All bike and ped injuries where sex and where veh type is known with exactly 1 motor vehicle |
| mv\_actn | all injuries in crashes with exactly 1 motor vehicle whose action is known | all injuries where accident time is known with exactly 1 motor vehicle whose action is known | all injuries in crashes where traffic control l is known with exactly 1 motor vehicle whose action is known | all ped injuries where ped action is known from crashes with exactly 1 motor vehicle whose action is known | all injuries in crashes where severity is known with exactly 1 motor vehicle whose action is known | all injuries in crashes with exactly 1 motor vehicle whose action is known | all injuries in crashes with exactly 1 motor vehicle whose action is known | all injuries in crashes with exactly 1 motor vehicle whose action is known | all injuries in crashes  where veh type is known with exactly 1 motor vehicle whose action is known | all injuries in crashes with exactly 1 motor vehicle whose action is known | all bike injuries in crashes with exactly 1 bike who’s action is known with exactly 1 motor vehicle whose action is known | All bike and ped injuries where age is known with exactly 1 motor vehicle whose action is known | All bike and ped injuries where age is known with exactly 1 motor vehicle whose action is known |
|  | year | time | traf\_cntr | ped\_actn | sev | loc | mode | taxi/liv | veh\_typ | mv\_actn | bike\_actn | age | sex |
| bike\_actn | all bike injuries with exactly 1 bike whose action is known | all injuries where accident time is known with exactly 1 bike whose action is known n | all injuries where traffic control is known with exactly 1 bike whose action is known | None | all bike injuries where injury severity is known with exactly 1 bike whose action is known | all bike injuries with exactly 1 bike whose action is known | all bike injuries with exactly 1 bike whose action is known | all bike injuries with exactly 1 bike whose action is known | all bike injuries in crashes with exactly 1 bike who’s action is known with exactly 1 motor vehicle whose type is known | all bike injuries in crashes with exactly 1 bike who’s action is known with exactly 1 motor vehicle whose action is known | all bike injuries with exactly 1 bike whose action is known | all bike injuries  where age is known with exactly 1 bike whose action is known | all bike injuries  where sex is known with exactly 1 bike whose action is known |
| age | All bike and ped injuries where age is known | All bike and ped injuries where age and time are known | All bike and ped injuries where age and traffic control are known | All ped injuries where age and ped action are known | All bike and ped injuries where age and severity are known | All bike and ped injuries where age is known | All bike and ped injuries where age is known | All bike and ped injuries where age is known | All bike and ped injuries where age and where veh type is known with exactly 1 motor vehicle | All bike and ped injuries where age is known with exactly 1 motor vehicle whose action is known | all bike injuries  where age is known with exactly 1 bike whose action is known | All bike and ped injuries where age is known | All bike and ped injuries where age and sex are known |
| sex | All bike and ped injuries where sex is known | All bike and ped injuries where sex and time are known | All bike and ped injuries where sex and traffic control are known | All ped injuries where sex and ped action are known | All bike and ped injuries where sex and severity are known | All bike and ped injuries where sex is known | All bike and ped injuries where sex is known | All bike and ped injuries where sex is known | All bike and ped injuries where sex and where veh type is known with exactly 1 motor vehicle | All bike and ped injuries where sex is known with exactly 1 motor vehicle whose action is known | all bike injuries  where sex is known with exactly 1 bike whose action is known | All bike and ped injuries where sex is known | All bike and ped injuries where age and sex are known |